

WHAT IS CLAIMED IS:

1 1. A method of updating a user's service profile information in a home domain of a
2 packet data network using Session Initiation Protocol (SIP), said method comprising the
3 steps of:

4 updating an established user's service profile record in a call instance host
5 associated with a user's terminal by retrieving the user's service profile information from
6 a home subscriber server (HSS) of the home domain, said updating initiated by a
7 REGISTER message, which contains sufficient information to identify the user's service
8 profile, sent by a node in the system aware of a user profile change to the associated
9 call instance host.

1 2. The method of claim 1, wherein the call instance host's retrieval of the user's
2 service profile includes the steps of:

3 issuing a HTTP message to the HSS by the associated call instance host; and
4 receiving in response to the HTTP message, at the call instance host from the
5 HSS, the user's service profile information in a response message.

1 3. The method of claim 2, wherein the response message is in an XML DTD
2 service-oriented profile.

1 4. The method of claim 2, wherein the response message is in an XML DTD
2 trigger-oriented profile.

1 5. The method of claim 2, wherein the response message is in an executable code
2 format.

1 6. The method of claim 2, wherein the HTTP message includes one of a HTTP
2 GET command or a HTTP HEAD command.

1 7. The method of claim 1, wherein the node in the system aware of the user profile
2 change is one of the HSS or an operation and maintenance system in the network.

1 8. The method of claim 1, including the preliminary steps of:
2 registering the HSS of the home domain on an associated interrogating
3 gateway;
4 querying the HSS by the associated interrogating gateway to determine the call
5 instance host associated with the user; and
6 redirecting the associated interrogating gateway to the associated call instance
7 host according to a response to the query.

1 9. The method of claim 8, wherein the step of querying the HSS by the associated
2 interrogating gateway includes the step of sending an SIP message by the HSS to the
3 interrogating gateway, said message including a Service-Transfer-Location header
4 indicating in which domain a service is to be executed and a Contact header indicating
5 the call instance host.

1 10. A method of updating a user's service profile information in a visited domain of a
2 packet data network using SIP, said method comprising the steps of:
3 updating an established user's service profile record in a call instance host of
4 the visited domain associated with a user's terminal by retrieving the user's service
5 profile information from a HSS of the home domain, said updating initiated by a
6 REGISTER message, which contains sufficient information to identify the user's service
7 profile, sent by a node in the system aware of a user profile change to the associated
8 visited domain call instance host.

1 11. The method of claim 10, wherein the call instance host retrieval of the user's
2 service profile includes the steps of:
3 issuing a HTTP message to the home domain HSS by the associated call
4 instance host; and
5 receiving in response to the HTTP message, at the associated call instance host
6 from the home domain HSS, the user's service profile information in a response
7 message.

1 12. The method of claim 11, wherein the response message is in an XML DTD
2 service-oriented profile.

1 13. The method of claim 11, wherein the response message is in an XML DTD
2 trigger-oriented profile.

1 14. The method of claim 11, wherein the response message is in an executable
2 code format.

1 15. The method of claim 11, wherein the HTTP message includes one of a HTTP
2 GET command or a HTTP HEAD command.

1 16. The method of claim 10, wherein the node in the system aware of the user
2 profile change is one of the visited domain HSS or an operation and maintenance
3 system in the network.

1 17. The method of claim 10, including the preliminary steps of:
2 registering the home domain HSS on an associated home domain interrogating
3 gateway;
4 querying the home domain HSS by the home domain interrogating gateway to
5 determine an associated visited domain interrogating gateway;
6 redirecting the associated home domain interrogating gateway to the associated
7 visited domain interrogating gateway according to a response to the home domain HSS
8 query;
9 querying a visited domain HSS by the associated visited domain interrogating
10 gateway to determine the associated call instance host in the visited domain; and
11 redirecting the associated visited domain interrogating gateway to the
12 associated call instance host according to a response to the visited domain HSS query.

1 18. The method of claim 17, wherein the steps of querying the home domain and
2 visited domain HSS by the respective associated interrogating gateways each include
3 the step of sending an SIP message by the respective HSS to the respective associated
4 interrogating gateway, said message including a Service-Transfer-Location header
5 indicating in which domain a service is to be executed and, in the case of the visited
6 domain HSS, a Contact header indicating the call instance host.

19. A system for updating a user's service profile information in a home domain in a packet data network using SIP, said system including a HSS and a call instance host, the system further comprising:

logic that updates an established user's service profile record in the call instance host by retrieving the user's service profile information from the HSS, said updating initiated by a REGISTER message, which contains sufficient information to identify the user's service profile, sent by a node in the system aware of a user profile change to the call instance host.

20. The system of claim 19, wherein the node in the system aware of the user profile change is one of the HSS or an operation and maintenance system in the network.

21. The system of claim 19, wherein, for the retrieval of the user's service profile, the call instance host comprises:

logic that issues a HTTP message by the call instance host to the HSS;

logic that receives in response to the HTTP message, from the HSS, the user's service profile in a response message; and

storage means that stores the user's service profile information.

22. The system of claim 19, further including an interrogating gateway and additionally comprising:

logic that registers the HSS on the interrogating gateway;

logic that queries the HSS by the interrogating gateway to determine the call instance host associated with the user; and

logic that redirects the interrogating gateway to the associated call instance host according to a response to the query.

23. A system for updating a user's service profile information in a visited domain in a packet data network using SIP, said system including a home domain HSS, a visited domain HSS and a visited domain call instance host, the system further comprising:

logic that updates an established user's service profile record in the visited domain call instance host by retrieving the user's service profile information from the

6 home domain HSS, said updating initiated by a REGISTER message, which contains
7 sufficient information to identify the user's service profile, sent by a node in the system
8 aware of a user profile change to the visited domain call instance host.

1 24. The system of claim 23, wherein the node in the system aware of the user
2 profile change is one of the visited domain HSS or an operation and maintenance
3 system in the network.

4 25. The system of claim 23, wherein, for the retrieval of the user's service profile,
5 the visited domain call instance host comprises:
6 logic that issues a HTTP message by the visited domain call instance host to the
7 home domain HSS;
8 logic that receives in response to the HTTP message, from the home domain
9 HSS, the user's service profile in a response message; and
10 storage means in the home domain HSS that stores the user's service profile
11 information.

1 26. The system of claim 23, further including a home domain interrogating gateway
2 and a visited domain interrogating gateway and additionally comprising:
3 logic that registers the home domain HSS on the visited domain interrogating
4 gateway;
5 logic that queries the visited domain HSS by the visited domain interrogating
6 gateway to determine the visited domain call instance host; and
7 logic that redirects the visited domain interrogating gateway to the visited
8 domain call instance host according to a response to the query.

1 27. The system of claim 23, further including a home domain interrogating gateway
2 and a visited domain interrogating gateway, wherein the REGISTER message is sent
3 via the visited domain interrogating gateway, said visited domain interrogating gateway
4 identified by the home domain HSS via the home domain interrogating gateway.